

Interpreting *selo* as a variable: the syntax- semantics interface*

Hyunoo Lee

The referentially dependent item, *selo*, in Korean may be construed as a bound variable. Construed thus, it cannot be anteceded by a coargument, but it is further constrained by the Specified Subject Condition or its binding-theoretic formulation. I attempt to account for this peculiar distribution in terms of Principle A of the binding theory and strategies of the syntax- semantics interface. To this end, I first characterize it as an anaphor that carries the Same Membership Presupposition and the Mutual Influence Presupposition. Observing that the propositions relevant to the validation of the sentence it is a constituent of are put in contrast only when the two presuppositions are met, I deduce the fact that the bound variable *selo* cannot be bound by its coargument from the Contrastiveness Condition that dictates that the relevant propositions be in contrast and the empirically given fact that an anaphor bound by its coargument yields no contrastiveness whatsoever.

1. Purpose

This paper is concerned with some strategies of syntax- semantics interface that are necessitated by the locality condition on an anaphor. I first show that there exists an anaphor that cannot be bound by a coargument but still constrained by the Specified Subject Condition or its modern binding-theoretic formulation. I then propose to account for the distribution of this peculiar type of anaphor on the basis of its semantic and/ or pragmatic properties. Without unnecessarily complicating the standard three-way taxonomy of overt nominal expressions for the binding theory,

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the proposed account argues that anaphors of the type in question are constrained by not only a syntactic condition like Principle A of the binding theory but also a condition on the syntax-semantics interface.

2. Statement of the Problem

As observed in the literature, the Korean pronoun *selo* is ambiguous.¹ Consider (1).

- (1) a. John-kwa Mary-ka *selo*-ka ikyessta-ko
 John-and Mary-Nom each other/they-Nom won-Comp
 sayngkakhanta.
 think
 b. 'John thinks that Mary won and Mary thinks that John won.'
 c. 'John thinks that he won and Mary thinks that she won.'

Sentence (1a) may have a reading on which *selo* is construed as a reciprocal pronoun, as indicated by the translation in (1b), or a reading on which it is construed as a bound variable, as indicated by the translation in (1c).

As will be discussed in detail below, the bound variable use of *selo* raises a challenging problem for virtually all versions of the binding theory. Before spelling out what the problem is, it would be helpful to review the canonical paradigm of the reciprocal use of *selo*, the unmarked use of the two. The Korean reciprocal pronoun *selo* has been assumed to be a typical anaphor whose distribution is constrained by Principle A of the binding theory (Chomsky, 1981, 1986). Consider (2) and (3).

- (2) a. John-kwa Mary-ka *selo*-lul salanghanta.
 John-and Mary-Nom each other-Acc love
 'John and Mary love each other.'

¹ As far as I know, Yang (1986) was the first that pointed out the ambiguous uses of *selo*. He dubbed the bound variable use of *selo* the respective one. An anonymous reviewer appears to raise a factual challenge about the ambiguity of *selo*. As will be clearer, the environments where the two readings of *selo* obtain are overlapping but not identical. Furthermore, the truth conditions of (1b) and (1c) are different, which sufficiently shows that *selo* is homophonous. The problem I would like to address here is then how to account for the restricted distribution of *selo* as interpreted as a bound variable.

- b. *John-kwa Mary-nun Julie-ka *selo*-lul
 John-and Mary-Top Julie-Nom each other-Acc
salanghanta-ko *sayngkakhanta*.
 love-Comp think
 'John and Mary think that Julie loves each other.'

- (3) John-kwa Mary-nun *selo*-ka *sungca*-la-ko *sayngkakhanta*.
 John-and Mary-Top each other-Nom winner-are-Comp think
 'John thinks that Mary is a winner and Mary thinks that John is a winner.'

The contrast between (2a) and (2b) shows that the Korean reciprocal *selo* is subject to the Specified Subject Condition, and the grammaticality of (3) indicates that unlike its English counterpart, *each other*, it is not subject to the Nominative Island Condition. Furthermore, it is generally assumed that *selo* is bound by a c-commanding antecedent, as borne out by (4).

- (4) John-kwa Mary_i-uy *chinkwutul*_j-i *selo*_{i/j}-lul *salanghanta*.
 John-and Mary-Gen friends-Nom each other-Acc love
 'John and Mary_i's friends_j love each other_{i/j}.'

Sentence (4) has the reading on which *selo* is anteceded by *John-kwa Mary-uy chinkwu* 'John and Mary's friends,' but not the reading on which it is anteceded by *John-kwa Mary*.

What I have shown in (2)–(4) is that the Korean reciprocal pronoun *selo* has to be bound by a c-commanding antecedent, subject to the Specified Subject Condition but not to the Nominative Island Condition. In other words, the distribution of reciprocal *selo* is just constrained by Chomsky's (1986) Licensing Condition in (5).

- (5) Let α be a category governed by a lexical category δ in the expression E with indexing I. Then for some β such that α is an anaphor and β is the least CFC containing δ for which there is an indexing J BT-compatible with (α, β) , I is BT-compatible with (α, β) .

The Licensing Condition in (5) is satisfied in (2a) and (3) since *selo* is actually bound in the smallest local domain where it is bindable. On the other hand, the condition is not satisfied in (2b) since *selo* fails to be bound

in the smallest local domain where it is bindable. By the same token, the disambiguation of (4) is guaranteed.

As first observed by Ahn (1988), the distribution of *selo* as a variable is more restricted than the one as a reciprocal pronoun. Consider (6).

- (6) a. John-kwa Mary-ka selo-lul piphanhayssta.
 John-and Mary-Nom each other/themselves-Acc criticized
 b. 'John criticized Mary and Mary criticized John.'
 c. *'John criticized himself and Mary criticized herself.'

As indicated by the translations in (6b)–(6c), *selo* can be interpreted as a reciprocal, but not as a variable, in (6a).

The contrast between (1a) and (6a) seems to suggest that the bound variable *selo* cannot have a clausemate antecedent. Let us call this restriction the anti-clausemate condition. By virtue of the anti-clausemate condition, the sentences in (7) are correctly ruled out.

- (7) a. John-kwa Mary-ka selo-eykey yok-ul
 John-and Mary-Nom each other/themselves-to offensive word-Acc
 hanta.
 speak
 'John speaks ill of Mary and Mary speaks ill of John.'
 *'John speaks ill of himself and Mary speaks ill of herself.'
 b. Bill-i John-kwa Mary-lul selo-eykey chwuchenhayssta.
 Bill-Nom John-and Mary-Acc each other/themselves-to recommended
 'Bill recommended John to Mary and Mary to John.'
 *'Bill recommended John to himself and Mary to herself.'

As indicated by the translations, both (7a) and (7b) have the reading on which *selo* is construed as a reciprocal pronoun, but neither has the reading on which it is construed as a bound variable.

Careful examination of further examples, however, shows that the anti-clausemate condition is not at work. Consider (8) and (9).

- (8) a. John-kwa Mary-ka selo-uy sayngkak-ul thelenoassta.
 John-and Mary-Nom they-Gen thought-Acc revealed
 'John told Mary what he thought and Mary told John what she thought.'

- b. Bill-i John-kwa Mary-lul *selo-uy* cip-ulo tollyeponayssta.
 Bill-Nom John-and Mary-Acc them-Gen house-to sent back
 'Bill sent John back to John's house and Mary back to Mary's house.'
- (9) a. *John-kwa Mary-nun Julie-uy *selo-ey* tayhan thayto-lul ihayhal
 John-and Mary-Top Julie-Gen them-towards attitude-Acc understand
 swu epsessta.
 could not
 'John couldn't understand Julie's attitude towards him and Mary couldn't understand Julie's attitude towards her.'
- b. *John-kwa Mary-nun Julie-ka *selo-lul* cohahanta-ko
 John-and Mary-Top Julie-Nom them-Acc likes-Comp
 sayngkakhanta.
 think
 'John thinks that Julie likes him and Mary thinks that Julie likes her.'

In (8a), *selo* is embedded in the accusative-marked NP, but bound by a clausemate antecedent, the nominative-marked NP, *John-kwa Mary-ka*. Likewise, in (8b), *selo* is embedded in the oblique NP, but bound by a clausemate antecedent, the accusative-marked NP, *John-kwa Mary-lul*. That the two sentences in (8) are grammatical on the intended bound variable reading means that the anti-clausemate condition is too strong. In (9a), *selo* is embedded in the accusative-marked NP with the specified subject, *Julie-uy*. In (9b), *selo* is embedded in the complement clause with the specified subject, *Julie-ka*. Both sentences lack the reading on which *selo* is construed as a variable bound by the matrix topic-marked NP, *John-kwa Mary-nun*. This means that the anti-clausemate condition is too weak.

To get the descriptive generalization that constrains the distribution of the bound variable *selo*, notice that the bound variable *selo* may occur where the reciprocal *selo* does except that the former cannot be bound by a coargument. In other words, the bound variable *selo* is subject to the Specified Subject Condition or the Licensing Condition in (5), and in addition, to the restriction that it cannot be bound by its coargument. It seems that it is constrained not only by the Licensing Condition in (5) but also by some additional restriction. This raises a couple of questions. Is it possible to deduce the Licensing Condition and the additional restriction from a single more fundamental primitive of grammar, and if so, in what

principled way? Or is the additional restriction a consequence of the idiosyncratic properties of the bound variable *selo*? Is its distribution determined by syntax or other components of grammar or both?

3. Towards a Binding-Theoretic Solution

3.1. Anaphor or Pronoun?

Before answering the questions raised above, it should be necessary to examine some characteristic features of the bound variable *selo*. To define what category it belongs to is of primary interest to the present discussion. What we have said about this item is that it is ambivalent. That it is subject to the Specified Subject Condition suggests that it is an anaphor, but that it cannot be bound by a coargument suggests that it is a pronoun.

There are some pieces of evidence that favor the first option that it is an anaphor. First, notice that although *selo* is discourse-bound in certain contexts, it does not have its own reference.

- (10) a. Pwupwu sai-ey chinmilkam-ul nukki-ko i-lul phyohyenhanun
 couple between intimacy-Acc feel-and this-Acc express
 kes-un taytanhi cwungyohata. Kulentey palo ku cem ttaymwun-ey
 that-Top very important But very the point because of
 kaltung-ul kyekknun khephul-i manhta. Mwuncey-nun selo-ka
 conflict-Acc undergo couple-Nom many problem-Top they-Nom
 sayngkakha-ko wenhanun chinmilkam-i talul ttay sayngkinta.
 Think-and want intimacy-Nom differ when exists
 'It is very important to feel and express intimacy between couples.
 But because of that point there are many couples who are in
 conflict. The problem arises when the close relationships they
 imagine and want are different.'
- b. A: John-kwa Mary-ka ettehkey cinayko issni?
 John-and Mary-Nom how do are
 'How are John and Mary doing?'
- B: E! Selo-ka ili oko issney.
 oh! They-Nom here come are
 'Oh! They are coming here.'

In the third sentence in (10a), *selo* is discourse-bound by the noun phrase *kaltung-ul kyekknun khephul* 'couples who are in conflict' in the previous sentence. Here *selo* gives rise to a kind of bound variable reading of the sentence.² As seen in the conversation in (10b), *selo* cannot be used deictically even with extralinguistic devices such as pointing or gesture. This fact simply means that it cannot make a reference. Since pronouns but not anaphors are able to make references, *selo* must be taken to be an anaphor.³

The fact that the bound variable *selo* fails to make a reference is further supported by the category-name I gave it. That is, *selo* may be interpreted as a reciprocal pronoun or as a bound variable. It cannot pick up the reference of its antecedent the way an ordinary pronoun does. Consider (11).

- (11) a. John-kwa Mary_i-ka selo_i-ka ikyessta-ko cwucangha-nuntey,
 John-and Mary-Nom they-Nom won-Comp claim-and
 Sam-kwa Julie_j-to kulayssta.
 Sam-and Julie-also do so
- b. 'John and Mary_i claimed that they_i won and Sam and Julie_j claimed that they_j won. (sloppy reading)
- c. 'John and Mary_i claimed that they_i won and Sam and Julie_j claimed that they_j won. (strict reading)

(11a) is not ambiguous; only (11b) is a possible interpretation of (11a). This shows that *selo* induces only a sloppy identity reading, hence it must be a variable and nothing else. Since virtually no pronouns function only as

² It is fairly easy to say what the sentence means but is very difficult to state formally what it is. The semantics of plurality makes the task far more difficult to do. Whatever powerful semantic analysis is needed, though, it is clear that *selo* must be construed to be a variable bound by an operator introduced to the representation of the sentence by the discourse-binding mechanism.

³ An anonymous reviewer thinks that the conversation in (10) is a semantically unnatural piece of discourse. I don't agree with his/her judgment. If a zero pronoun or an epithet is substituted for *selo* in (10b), everything is fine.

- (i) A: John-kwa Mary-ka ettehkey cinayko issni?
 John-and Mary-Nom how do are
 'How are John and Mary doing?'
 B: E! Ø/Kyaytul ili oko issney.
 ah! Zero pronoun/Those guys here come are
 'Oh! They are coming here.'

bound variables, it would be highly plausible to say that the bound variable *selo* is an anaphor.

Second, a pronoun can be coreferential with a referring expression that fails to c-command it, as in (12).

- (12) John-kwa Mary_i-uy chinkwutul-j-un kutul_{i/j}-i nemwu
 John-and Mary-Gen friends-Top they-Nom too
 ttokttokhata-ko sayngkakhanta.
 smart-Comp think

(12) is said to be ambiguous in many ways: the embedded subject *kutul_{i/j}* may refer to John and Mary or their friends or someone else. But the bound variable *selo* cannot have a non-c-commanding antecedent, as in (13).

- (13) John-kwa Mary_i-uy chinkwutul-j-un selo_{i/j}-ka nemwu ttokttokhata-ko
 John-and Mary-Gen friends-Top they-Nom too smart-Come
 sayngkakhanta.
 think
 'John and Mary_i's friends_j think that they_{i/j} are too smart.'

The reciprocal reading set aside, only the reading on which *selo* is taken to be John and Mary's friends is available for (13). This means that the grammatical use of the bound variable *selo* requires a c-commanding antecedent. This fact also supports the idea that it is an anaphor rather than a pronoun.

Third, the relation of a pronoun to its antecedent can, in principle, be unbounded, as in (14).

- (14) Kutul-j-un John-kwa Mary_j-ka kutul_{i/j}-uy sayngkak-ul malhayssta-ko
 they John-and Mary-Nom them-Gen thought-Acc told-that
 sayngkakhanta.
 think
 'They_i think that John and Mary_j told their_{i/j} thought.'

As shown by the indexing in (14), the pronoun, *kutul_{i/j}-uy*, may be anteceded by the embedded subject *John-kwa Mary_j* or the matrix subject *Kutul_i*. As expected, however, if the pronoun *kutul-uy* is replaced by the

variable *selo-uy*, only the embedded subject *John-kwa Mary_j-ka* can antecede it.

- (15) Kutul_i-un John-kwa Mary_j-ka selo_{i/j}-uy sayngkak-ul malhayssta-ko
 they John-and Mary-Nom them-Gen thought-Acc told-that
 sayngkakhanta.
 think
 'they_i think that John and Mary_j told their_{i/j} thought.'

This fact also counts as evidence in favor of the idea that the bound variable *selo* is an anaphor.

3.2. Anaphora Determined on the Syntax-Semantics Interface

I have so far argued that although the bound variable *selo* cannot be anteceded by a coargument, it must be treated as an anaphor. If it is indeed an anaphor, what is the domain in which it must be bound? We have seen that some occurrences of *selo* are ruled out by the Specified Subject Condition or the Licensing Condition in (5), and some other occurrences, by the restriction that it cannot be bound by a coargument. As formulated in recent work such as Pollard and Sag, 1992 and Reinhart and Reuland, 1993, the canonical domain for an anaphor is the c-command domain of its coarguments. Moreover, the historical development of the binding theory tells that the domain in which an anaphor is bound must be stated positively. In this connection, a natural question arises: is it possible to syntactically define the domain in which the bound variable *selo* is bound. For the sake of clarity, assume (16).

- (16) Let α , β be arguments of a predicate P. Given that α is a typical anaphor, let $GOV(\alpha)$ be a domain in which α is bound, and $CCD(\beta)$, a c-command domain of β .

Given the definitions in (16), the following hold:

- (17) a. $GOV(\alpha) \supseteq CCD(\beta)$
 b. $GOV(selo) = GOV(\alpha) - CCD(\beta)$

(17a) says that the domain in which a typical anaphor is bound is a domain that contains the c-command domain of its coargument. (17b) means that

when the typical anaphor is replaced by the bound variable *selo*, the domain in which the latter is bound is the domain which complements the *c*-command domain of its coargument with respect to the domain in which the former is bound. Suppose α is an object of P , a predicate of a main clause, and β , a subject of P . Then $GOV(selo) = \emptyset$ because $GOV(\alpha)$ is the same as $CCD(\beta)$, the main clause. That no domain where *selo* is bound exists guarantees that it, as object, cannot be bound by its coargument, subject. Suppose α is a subject of P , a predicate of an embedded clause, and β , an object of P . Then $GOV(selo)$ is the clause that immediately contains the embedded clause but excludes the *c*-command domain of the embedded object.

It might be possible to formally define the domain in which the bound variable *selo* is bound in purely configurational terms and without any paradigmatic notions like those in (17), but it would be very doubtful that those terms are independently motivated. It may be that the bound variable *selo* is *not* special at all in that like other anaphors, it must be syntactically constrained by the Specified Subject Condition or the Licensing Condition in (5), but *is* special in that its semantic or pragmatic idiosyncrasies require it not to be bound by a coargument. Along the line of this idea, I propose that *selo* must be not only syntactically constrained by the Licensing Condition but also semantically constrained by the condition in (18).

(18) The Contrastiveness Condition for *selo*

The bound variable *selo* is licensed only when the following holds:

Let *selo* be anteceded by α and R be a two-place predicate which relates α with *selo*, where R can be an atomic or complex predicate. Then propositions that are supposed to validate the proposition $R'(\alpha', SELO)$ must be in contrast with each other. For example, proposition $R'(x, x)$ must be in contrast with $R'(y, y)$, where x and y are members of the set $\{x, y\}$ denoted by α .⁴

Irrespective of whether *selo* is interpreted as a reciprocal pronoun or a bound variable, it must be syntactically licensed by (5). This correctly rules

⁴ Note that I am using the notion of contrastiveness as a primitive term. It would be desirable to state both the necessary and the sufficient conditions for X 's being in contrast with Y . I can give only the necessary conditions in this paper, though.

out sentences (9a) and (9b) as syntactically ill-formed. It also accounts for the disambiguation of sentences (13) and (15). The Licensing Condition in (5), however, rules in not only the grammatical sentences (1a), (8a), and (8b) but also the ungrammatical sentences (6a), (7a), and (7b). On the approach taken here, all the sentences are treated as syntactically well-formed, but the latter three sentences are ruled out as semantically ill-formed. This is because they violate the Contrastiveness Condition in (18). In the remainder of the paper I will show why.

If the proposed account is on the right direction, what remains is to account for why sentences like (6a), (7a), and (7b) fail to meet the Contrastiveness Condition. To this end, notice first that the Contrastiveness Condition is well-motivated by the semantic or pragmatic properties of the bound variable *selo*. Contrast (19a) with (19b).

- (19) a. Bush-wa Gore-ka *selo*-ka ikyessta-ko cwucanghayssta.
 Bush-and Gore-Nom they won-Comp claimed
 'Bush and Gore claimed that they each won.'
- b. ?*Bush-wa Hillary-ka *selo*-ka ikyessta-ko cwucanghayssta.
 Bush-and Hillary-Nom they won-Comp claimed
 'Bush and Hillary claimed that they each won.'

Unlike sentence (19a), sentence (19b) sounds odd. Why doesn't it sound natural? I think the utterance of (19b) presupposes that Bush and Hillary were participants of the same event, e.g., the 2000 presidential election, and that they were assumed to influence each other by participating in the same event. But our real world knowledge does not support such presuppositions. In this regard, consider (20).

- (20) Bush-wa Hillary-ka *caki*-ka ikyessta-ko cwucanghayssta.
 Bush-and Hillary-Nom they won-Comp claimed
 'Bush and Hillary claimed that they each won.'

Sentence (20) is perfectly natural since the utterance of (20) does not carry the presuppositions that the utterance (19b) does. Hence, (20) can be felicitously used even when Bush and Hillary are not known to have participated in the same event and they were not assumed to influence each other through that event. That is, (20) is possible even when Bush and Hillary claim their victories on different occasions. In sum, the contrast

between the above sentences reveals the two important semantic and/or pragmatic features of the bound variable *selo*, which I would like to call the Same Membership Presupposition and the Mutual Influence Presupposition.

(21) DEFINITION

Let event e be an individual sum of events e' and e'' , that is, $e' \oplus e'' = e$. Then, for all events e' and e'' , e' and e'' are *of the same event* if and only if (i) $e' = e''$ or (ii) e' and e'' are members of an ALTERNATIVE SET restricted contextually.⁵

- (22) Let *selo* be anteceded by α and R be a two-place predicate that relates α with *selo*, where R can be an atomic or complex predicate.

a. Same Membership Presupposition

Propositions that are supposed to validate $R'(\alpha', \text{SELO})$ (e.g. $R'(x, x)$ and $R'(y, y)$ in case that α denotes the set $\{x, y\}$) must be of the same event.

b. Mutual Influence Presupposition

The referents of the antecedent of *selo* must be assumed to influence each other by participating in the subevents of the same event.

By virtue of (22a), it is guaranteed that propositions that are supposed to validate the sentence with a bound variable *selo* must be contextually constrained, mutually related events, and by virtue of (22b), it is usually used in the sentence that talks about participants of the same event who influence, argue against, or compete with each other. It is these two presuppositions that differentiate the bound variable *selo* from other anaphors like *akai* or *casin*.

There is further evidence in support of the claim that the bound variable *selo* carries the Same Membership Presupposition and the Mutual Influence Presupposition. Contrast (8a), repeated as (23a), with (23b).

- (23) a. John-kwa Mary-ka selo-uy sayngkak-ul thelenoassta.
 John-and Mary-Nom they-Gen thought-Acc opened
 'John told Mary what he thought and Mary told John what she thought.'

⁵ By the notion ALTERNATIVE SET I mean something like what Rooth (1996) introduces in the alternative semantics.

- b. John-kwa Mary-ka caki-uy sayngkak-ul thelenoassta.
 John-and Mary-Nom they-Gen thought-Acc opened
 'John told what he thought and Mary told what she thought.'

As the translation shows, the natural interpretation of (23a) is that in the context in which John and Mary were engaged in the same event in the manner specified above and they were assumed to be mutually influenced, John and Mary told each other what they thought. Unlike (23a), (23b) does not necessarily require John and Mary to be engaged in the same event or they were thought to be mutually influenced.

The explication of the semantic and/or pragmatic contribution of the bound variable *selo* helps us clarify what is meant by 'R'(x, x) is in contrast with R'(y, y)' in (18). The two propositions are in contrast only if (i) x and y are engaged in the same event in manner specified above, and (ii) x and y are assumed to be mutually influenced. In other words, the contrastiveness requirement in (18) is met only if the Same Membership Presupposition and the Mutual Influence Presupposition are met. Given this, we are now able to explain why sentences (6a), (7a), and (7b), repeated as (24a), (24b), and (24c), respectively, violate the Contrastiveness Condition in (18).

- (24) a. John-kwa Mary-ka *selo*-lul piphanhayssta.
 John-and Mary-Nom each other/themselves-Acc criticized
 'John criticized himself and Mary criticized herself.'
- b. John-kwa Mary-ka *selo*-eykey yok-ul
 John-and Mary-Nom each other/themselves-to offensive word-Acc
 hanta.
 speak
 'John speaks ill of himself and Mary speaks ill of herself.'
- c. Bill-i John-kwa Mary-lul *selo*-eykey
 Bill-Nom John-and Mary-Acc each other/themselves-to
 chwuchenhayssta.
 recommended
 'Bill recommended John to himself and Mary to herself.'

It has been widely accepted that when it is bound by its coargument, a reflexive pronoun can yield no contrastiveness whatsoever. Consider the sentences in (25), where the reflexive pronoun *asin* is substituted for *selo* in (24).

- (25) a. John-kwa Mary-ka casin-ul pipphanhayssta.
 John-and Mary-Nom themselves-Acc criticized
 'John criticized himself and Mary criticized herself.'
- b. John-kwa Mary-ka casin-eykey yok-ul hanta.
 John-and Mary-Nom themselves-to offensive word-Acc speak
 'John speaks ill of himself and Mary speaks ill of herself.'
- c. Bill-i John-kwa Mary-lul casin-eykey chwuchenhayssta.
 Bill-Nom John-and Mary-Acc themselves-to recommended
 'Bill recommended John to himself and Mary to herself.'

That the sentences in (25) exhibit no contrastiveness at all confirms that the sentence structures in (24) are not the appropriate environment for the contrastiveness construal. Hence, all the sentences in (24) violate the Contrastiveness Condition in (18), lacking the bound variable construal of *selo*.⁶

It is interesting that utterances of the sentences in (24) can hardly meet the Same Membership Presupposition and the Mutual Influence Presupposition even though contextual considerations give those sentences some kind of contrastiveness. That is, even in the context, for example, in which John's self-criticism and Mary's self-criticism are compared and contrasted, the utterance of (24a) doesn't seem to make sense. This is because the two presuppositions triggered by the use of the bound variable *selo* are hard to meet for some unknown reasons.

Turning to the grammatical sentence in (1a), repeated as (26), let us explain why it must be grammatical.

- (26) John-kwa Mary-ka selo-ka ikyessta-ko sayngkakhanta.
 John-and Mary-Nom they-Nom won-Comp think
 'John thinks that he won and Mary thinks that she won.'

In order to see how (26) satisfies the Contrastiveness Condition, observe what happens when the embedded subject is replaced by the reflexive pronoun *caki-ka*.

⁶ Two anonymous reviewers argue that *selo* lacks the bound variable reading in (24b-c) because the two verb phrases, *x-eykey yok-ul hata* 'speak ill of x' and *x-lul y-eykey chwuchenhata* 'recommend x to y,' denote irreflexive relations. But the grammaticality of (25b-c) shows that they can be reflexive, and hence the restricted distribution of the bound variable *selo* has nothing to do with the verbs' meaning.

- (27) John-kwa Mary-ka kaki-ka ikyessta-ko sayngkakhanta.
 John-and Mary-Nom they-Nom won-Comp think
 'John thinks that he won and Mary thinks that she won.'

Unlike the sentences in (25), sentence (27) yields contrastiveness. That is, (27) is naturally understood to describe the state of affairs in which John thinks no one but himself won and Mary thinks no one but herself won. This is exactly what contrastiveness tells us, and hence confirms that the propositions that are thought to validate sentence (26) can be put in contrast. Given that the Same Membership Presupposition and the Mutual Influence Presupposition are satisfied, sentence (26) is used grammatically and felicitously.

Let us now consider the sentences in (23) again. It is clear that sentence (23b) is a suitable description of the circumstance in which John told what no one but himself thought and Mary told what no one but herself thought. This guarantees that sentence (23a) can be used grammatically and felicitously with the bound variable reading of *selo*.

4. Concluding Remarks

Principles of various versions of the binding theory state that anaphors stand in a local relation with their antecedents. (Chomsky, 1986; Pollard and Sag, 1992; Reinhart and Reuland, 1993) In this paper I discussed one problem that may be viewed to challenge this locality condition. I then proposed to account for the problem in terms of strategies of the syntax-semantics interface.

The locality problem has to do with the bound variable *selo* that cannot be bound by a coargument but is partially constrained by the Licensing Condition. To address this problem in a maximally restricted manner, I first characterized it as an anaphor that carries the Same Membership Presupposition and the Mutual Influence Presupposition. I then observed that the propositions that are supposed to validate the sentence with a bound variable *selo* are put in contrast only when the two presuppositions are met. This enabled us to deduce the fact that the bound variable *selo* cannot be bound by its coargument from the Contrastiveness Condition that dictates that the relevant propositions be in contrast and the empirically given fact that an anaphor bound by its coargument yields no

contrastiveness whatsoever. Thus the theory of anaphora need not make principles of the binding theory unnecessarily complicated.

The account proposed here deserves more credit on the following ground. The characterization of the bound variable *selo* is not arbitrary but quite compatible with the meaning of the reciprocal *selo*. The reciprocity of the latter guarantees that what is presupposed by the Same Membership Presupposition is asserted and that the relevant propositions that serve to validate the truth of a reciprocal statement are mutually influenced.⁷ Because what are presupposed by the Same Membership Presupposition and the Mutual Influence Presupposition are asserted by the use of the reciprocal *selo*, it would be quite plausible to assume that reciprocal statements always satisfy the Contrastiveness Condition. From this it follows that the reciprocal *selo* can be bound by a coargument.

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⁷ The claim that the two have a property in common is supported by a sentence like (i).

- (i) John-kwa Mary-ka *selo*-uy maum-ul cwu-ko patassta.
 John-and Mary-Nom each other/them-Gen heart-Acc gave-and received
 'John gave his heart to Mary and Mary gave her heart to him, and
 John received her heart from her and Mary received his heart from him.'

Although the question of how to represent the meaning of the sentence is too complicated a matter to address, it clearly involves a flip-flop of the two meanings of *selo*. This flip-flop is possible only when the two meanings are closely related.

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Department of English Language Education
Inha University
253 Yonghyeon-dong, Nam-gu
Incheon 402-751, Korea
E-mail : hylee@inha.ac.kr